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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,320	12/03/2003	Charles R. Lefurgy	AUS920030894JS1	6220

61043 7590 08/30/2006

IBM CORPORATION (MH)  
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EXAMINER

SUGENT, JAMES F

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/727,320	Applicant(s) LEFURGY ET AL.	
	Examiner James F. Sugent	Art Unit 2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15 is/are allowed.
- 6) ☒ Claim(s) 16-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on December 3, 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/10/2006</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This Office Action is sent in response to Applicant's Communication received June 20, 2006 for application number 10/727320 originally filed December 3, 2003. The Office hereby  
5 acknowledges receipt of the following and placed of record in file: amended claims 1-20 are presented for examination.

#### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on June 10, 2006 was filed. The  
10 submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

However, the Examiner would like to point out that a U.S. Patent cited (page 1, item 6; Green Pat. No. 6,776,787) has been improperly cited. Therefore, item 6 on page 1 of the IDS is not being considered.

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#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

20 (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an  
25 international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Greene (U.S. Patent No. 6,775,787 B2) (hereinafter referred to as Greene).

As to claim 16, Greene discloses a device controller for coupling a group of devices to one or more processors (102 and 104) in a processing system, comprising: a command unit (208) for sending commands to a said one or more devices (212-218) (column 4, lines 62-65); at least one control register (262 within 222) for receiving a local maximum power consumption bound (column 5, line 65 thru column 6, line 15); a storage (202) containing an access queue for each of said associated devices (column 4, lines 1-17); and, control logic (206) coupled to said at least one control register (as shown in fig. 2) and to said storage and including logic for determining quantities of accesses queued for each of said associated devices to predict a predicted usage level (column 4, lines 35-38), wherein said control logic is further coupled to an input of said command unit (as shown in fig. 2) for sending power management commands consistent with maintaining a total power consumption of said group of devices below said local maximum bound and determined in conformity with a result of said predicted usage level (column 4, lines 43-46 and column 8, lines 60-65), whereby said device controller power manages said group of devices without intervention by said one or more processors (processor 102 works independently from processor 104; column 2, lines 23-43).

As to claim 17, Greene further discloses the device controller of claim 16, further comprising at least one other control register for receiving a local minimum power bound, wherein said control logic is further coupled to said at least one other control register (260 within 222) for sending power management commands consistent with maintaining a total power consumption of said group of devices above said local minimum bound, whereby changes in

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power consumption of each of said groups is limited to avoid excessive current spikes within a power distribution network of said processing system (column 5, line 65 thru column 6, line 15).

As to claim 18, Greene further discloses the device controller of claim 16, wherein said device controller is a memory controller, said devices are memory modules, and wherein said command unit sets a power management state of each associated memory module (column 2,  
5 line 52 thru column 3, line 17).

As to claim 19, Greene further discloses the device controller of claim 16, further comprising evaluators (220, 250, 252 and 254) for evaluating a usage of each associated device in order to determine whether or not said usage of each device has fallen below a threshold, and  
10 wherein said control logic further determines said power management settings for each particular device in conformity with said measured usage for each particular device (column 5, line 53 thru column 6, line 15).

As to claim 20, Greene further discloses the device controller of claim 19, wherein said control logic further compares said quantity of accesses queued for each particular device with a  
15 predetermined threshold to determine said power management setting for said each particular device (column 4, lines 27-56).

***Allowable Subject Matter***

Claims 1-15 are allowed.

20 The following is a statement of reasons for the indication of allowable subject matter:  
independent claims 1 and 8 both recite similar matter that could not be found in further search.  
Claims 1 and 8 comprise the elements of providing/receiving a global maximum power

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consumption bound for a plurality of groups of controlled devices wherein each group of controlled devices determines a local maximum bound, one for each set of groups of devices, wherein each local maximum bound is communicated to an associated group of devices wherein a sum of said local bounds is less than a global maximum power bound.

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### *Response to Arguments*

Applicant's arguments with respect to claims 16-20 have been considered but are moot in view of the new ground(s) of rejection.

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### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sugent whose telephone number is (571) 272-5726. The examiner can normally be reached on 8AM - 4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or (571) 272-1000.

15 James F. Sugent  
Patent Examiner, Art Unit 2116  
August 26, 2006

  
**LYNNE H. BROWNE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**